

Subject: CHLORDANE CONTAMINATED SOIL AT THE 212 FAMILY HOUSING REPLACEMENT PROJECT, MARINE CORPS BASE HAWAII (MCBH) KANEOHE

1. Background:

- Naval Facilities Engineering Command, Hawaii (NAVFAC Hawaii) is administering a \$50 million contract, awarded to Metcalf Construction Company Inc. in October 2002, to construct 212 replacement junior enlisted homes for Marine Corps Base Hawaii (MCBH).

(b) (4)



- Chlordane is a chemical that was legally used for years around housing foundations to prevent termites, until banned by EPA in 1988. No longer used on government property, it can be found in small amounts around older houses because of past application.
- There are no federal or state regulations for handling contaminated soil resulting from the legal application of chlordane, as in this case.
- Contractor contacted media, regulatory agencies, and congressional delegates informing them about the Navy's handling of chlordane, specifically stating that soil with concentrations exceeding 1.6 parts per million (ppm) were unsafe. NAVFAC's position, consistent with the EPA Region IX website, is that 1.6 ppm serves as screening and not cleanup level.

2. Discussion:

- Soil tests collected in July 2005, detected chlordane in some samples above State of Hawaii Department of Health (DOH) and EPA screening level guidance of 1.6 ppm.
- The Navy Environmental Health Center (NEHC), who has significant experience in conducting risk assessments, performed a human health risk assessment in accordance with EPA guidelines. The assessment recommended that most of the soil remain in place or be used for landscaping, with the exception of one area where the soil had much higher levels of chlordane. This soil was recommended for removal or coverage with a permanent barrier to prevent exposure.
- Based on the assessment, soil, containing the higher concentrations of chlordane from one area, will be encapsulated with a hard surface basketball court, which will serve as a barrier preventing occupant exposure. The remaining soil will remain in place or used for area landscaping. This approach is safe, consistent with results of the site-specific risk assessment, and complies with regulatory requirements and typical standard industry practice.
- Five (5) representatives from DOH visited the project site in May 2006. Additionally, DOH has further reviewed sampling data and documentation, and has not found the Navy to be in noncompliance with applicable regulatory requirements nor have they required adjustments to our management strategies.
- At DOH request, Navy is leading efforts with other Department of Defense (DoD) services to develop a DoD policy for chlordane.

3. Recommendation:

- For information only